

January 19, 2011

Attn: Compliance Tracker, AE-17J  
Air Enforcement and Compliance Assurance Branch  
U.S. Environmental Protection Agency Region 5  
77 West Jackson Boulevard  
Chicago, Illinois 60604

RE: Consent Decree Civil Action No. 1:09-CV-545  
Effective Date February 4, 2010



Dear Sirs:

Please find attached the Semiannual Report for the Second Half 2010. Please contact me at (513) 467-2470 or [michele.smith@lustran-polymers.com](mailto:michele.smith@lustran-polymers.com) if you have any questions concerning the submitted information.

Respectfully Submitted,

A handwritten signature in blue ink that reads "Michele A. Smith".

Michele A. Smith, P.E.  
Environmental Specialist  
INEOS ABS (USA) Corporation

cc: M. Palmero, USEPA Region 5  
T. Kalman, OEPA  
G. Bachmann, Ohio AG  
M. Kramer, HCDOES

# **INEOS ABS (USA) CORPORATION'S ADDYSTON, OH PLANT**

## **CONSENT DECREE SEMIANNUAL REPORT**

Consent Decree Civil Action No. 1:09-CV-545

Effective Date February 4, 2010

Reporting Period: 07/01/10 – 12/31/10

### **I. INTRODUCTION**

The following report contains the required information about INEOS ABS' compliance activities associated with the requirements in Paragraph 50 a. and 50 b. in the Consent Decree.

### **II. COMPLIANCE REQUIREMENTS**

Per Section VI (Compliance Requirements) of the Consent Decree, INEOS ABS met the following compliance requirements:

#### **A. FLARE COMPLIANCE REQUIREMENTS**

1. Steam-to-Vent Gas Ratio < 3.6 to 1 as a 1-hour Block Average (Paragraph 18 a.)  
No deviations in the second half of 2010.
2. Net Heating Value of Vent Gas > 385 BTU/scf as a 1-hour Block Average (Paragraph 18 b.)  
No deviations in the second half of 2010.
3. NHVFG > 200 BTU/scf as a 1-hour Block Average (Paragraph 19)  
One deviation occurred in the second half of 2010 as explained in Part IV.A. below for details.
4. Flare Monitoring Requirements (Paragraph 20 & 23)  
Required data was measured, calculated, and recorded at all times that the Process P001 Flare was in operations and reports were submitted monthly as stated in the Quarterly Reports.
5. Flare Monitoring Instruments Standard Operating Procedure (SOP) (Paragraphs 21 & 22)  
The SOP was submitted on March 5, 2010. Conditional approval from U.S. EPA was received on June 7, 2010. INEOS ABS submitted a Notice of Dispute on June 24, 2010, which has yet to be resolved.
6. Passive FTIR (Paragraph 24)  
The Passive FTIR Work Plan was submitted August 17, 2009 and a revised Passive FTIR Work Plan was submitted September 28, 2009. The U.S. EPA approved the Passive FTIR Work Plan on October 28, 2009. The testing was performed November 3 through November 5, 2009. The Passive FTIR Test Report was submitted on July 6, 2010, and a Supplemental Report was submitted on August 6, 2010.
7. P001 Process Evaluations (Paragraph 25)  
One evaluation was sent within fifteen days of receiving sampling results to Hamilton County Department of Environmental Services (HCDES) for detections of 1,3-butadiene on July 7, 2010.

**B. BIOFILTER PROJECT**

1. Biofilter Work Plan (Paragraph 28)  
The Biofilter Work Plan was submitted on March 19, 2010 and approved by Ohio EPA on April 14, 2010.
2. Biofilter Operations and Monitoring Plan (Paragraph 28 a.)  
This plan is not required until construction and emission testing is completed.
3. Quarterly Deviation Reports (Paragraph 28 b.)  
Quarterly reports are not required until construction and emission testing is completed.
4. Biofilter Installation Schedule (Paragraph 29)  
Construction of Phase I of the Biofilter was completed on December 2, 2010.

**C. EMISSION UNIT P035 SCRUBBER PROJECT**

This emission unit continues to be idle and hence there are no compliance requirements for this project (Paragraphs 30 & 31).

**D. MAIN DUCT LEAK DETECTION AND REPAIR (LDAR) STANDARD OPERATING PROCEDURE (SOP)**

The Main Duct LDAR SOP was approved by the U.S. EPA on July 26, 2010. A revised Main Duct LDAR SOP was submitted on September 8, 2010. The Main Duct LDAR SOP was implemented on June 25, 2010.

**E. ENHANCED LEAK DETECTION AND REPAIR (APPENDIX A)**

1. Part A: General  
A written facility-wide LDAR Program Plan was written by May 4, 2010. The Plan was reviewed and updated on December 29, 2010.
2. Part B: Monitoring Frequency  
Monitoring frequencies were increased on January 1, 2010 (prior to the Effective Date of the Consent Decree). There were four instances where monitoring was not performed in the required timeframe. See Part IV.A., C., D., and E. below for details.
3. Part C: Monitoring Methods and Equipment  
Method 21 is being used to perform monitoring of all Covered Equipment using a Toxic Vapor Analyzer 1000B Flame Ionization Detector attached to a datalogger which directly electronically records the required data. The monitoring data is transferred to an electronic database daily as of January 1, 2010. As of January 1, 2010 (prior to the Effective Date of the Consent Decree), calibration of the LDAR monitoring equipment is being performed per Method 21 and calibration drift assessment are performed prior to and completion of each monitoring shift.
4. Part D: LDAR Action Levels  
Lower leak repair action levels were implemented on January 1, 2010 (prior to the Effective Date of the Consent Decree).
5. Part E: Leak Repairs  
There was one instance when a leak was not repaired in the required timeframes. See Part IV.C. below for details. As of February 4, 2010, Quasi-Directed Maintenance is being performed during all repair attempts. Fifty-three leaking valves were repaired in the second half of 2010. Drill and tap repairs were not performed as there is a significant safety risk to perform drill and tap on valves in HAP service as the materials inside the piping is flammable and/or highly explosive.

6. Part F: Delay of Repair (DOR)  
As of January 1, 2010 (prior to the Effective Date of the Consent Decree), the plant manager or his designee signs all DOR. As of March 5, 2010, the Covered Equipment on the DOR list continues to be monitored at their required frequency.
7. Part G: Equipment Replacement/Improvement Program (ERIP)  
A list of all valves in the LDAR Program was submitted on March 5, 2010. No other requirement in the ERIP is required at this time.
8. Part H: Management of Change (MOC)  
MOC is being completed at the facility. All MOC documentation requires a review by the Environmental Department.
9. Part I: Training  
Initial training was completed in May and June 2010. More detailed training for supervisors was performed on July 22, 2010 and for contractors on July 28, 2010.
10. Part J: Quality Assurance/Quality Control (QA/QC)  
On a daily basis, technicians are certifying that the data collected represents that monitoring performed. Certification was missed on one day as explained below in Part IV.C. Two QA/QC audits were completed on July 13, 2010 and October 8, 2010. Corrective actions are still being addressed from these audits.
11. Part K: LDAR Audits and Corrective Actions  
The LDAR External Audit was completed on August 25, 2010. The Corrective Action Plan for the 2010 external audit was completed on 09/21/10 and was submitted to U.S. EPA for approval on 12/21/10.
12. Part L: Certification of Compliance  
No certificates of compliance were required to be submitted during this period.
13. Part M: Recordkeeping  
All records are being kept as required in Appendix A of the Consent Decree.
14. Part N: Reporting  
No compliance status reports were required to be submitted during this period.

#### F. PERMITS

No permits were required to be completed and/or submitted in the second half of 2010 (Paragraphs 35 through 39).

#### G. CERCLA/EPCRA REQUIREMENTS

1. Spill/Release Reporting Policy (Paragraph 41)  
There was no requirement to revise the policy during the second half of 2010.
2. Reportable Quantity Root cause Analysis (Paragraph 42)  
There have been no reportable quantity air releases in the second half of 2010.
3. Training (Paragraph 43)  
No training was required in the second half of 2010.

4. Program Evaluation and Report (Paragraph 44 through 47)  
No evaluation or report was required the second half of 2010.
5. Program Evaluation Corrective Actions (Paragraph 48)  
All corrective actions identified in the Program Evaluation Report were completed in the first half of 2010.

#### H. AMBIENT AIR MONITORING

INEOS ABS continues to reimburse HCDES for costs associated with the analysis of samples collected at the monitoring location at Meredith Hitchens Elementary School.

### III. COSTS INCURRED DURING PERIOD

Per Paragraph 50 a. of the Consent Decree, the following costs were incurred by INEOS ABS during the second half of 2010:

LDAR Technician/Maintenance	\$285,000
LDAR External Audit	\$34,000
Contractor Connector Monitoring	\$37,000
LDAR Monitoring Equipment	\$3,300
Equipment Replacements	\$32,000
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Total	\$391,300

### IV. NONCOMPLIANCE WITH CONSENT DECREE

Per Paragraph 50 b. of the Consent Decree, INEOS ABS submitted the following letters of noncompliance to the U.S. EPA and Ohio EPA during the second half of 2010:

#### A. Missed Monitoring – Letter Dated August 4, 2010

From March 6, 2010 until the date of the letter, 42 valves were added into the program. Fourteen were not monitored in the first quarter of 2010 and one of those valves was also not monitored in the second quarter 2010. In addition, two open-ended lines were added into the program in third quarter 2010 and were not monitored in the second quarter 2010. All 42 valves have been monitored.

#### B. Net Heating Value of the Flare Gas Below 200 BTU/scf – Letter Dated September 8, 2010

On August 29, 2010 between 5:45 and 8:50 am, the Net Heating Value of the Flare Gas (NHVFG) at the Flare was less than the required 200 BTU/scf as a one-hour Block Average. The Flare was operating at low flows and the instantaneous NHVFG value was below the required 200 BTU/scf. Natural gas was added manually, but not enough to maintain a NHVFG above 200 BTU/scf as a one-hour Block Average. Since this time, programming was updated and the system is to only operate in automatic control.

#### C. Missed Monitoring, Calibration Errors and Missed Repair Date – Letter Dated September 14, 2010

One valve and two open-ended lines were added into the program during third quarter 2010. The one valve was not monitored first or second quarter 2010 and the two open-ended lines were not monitored in second quarter 2010.

Monitoring has been completed on these components.

One technician did not certify their monitoring results on one monitoring day. In addition, calibration was not being performed per the requirements of Method 21.

Procedures have been revised and training has been provided to address these issues.

One valve that was reported leaking was not repaired within the five-day first attempt of repair timeframe. Procedures have been revised and training has been provided to address these issues.

**D. Missed Monitoring – Letter Dated October 10, 2010**

One agitator was not monitored in September 2010. The process unit run schedule was changed late in the month prior to monthly monitoring completion. The agitator was monitored on October 4<sup>th</sup>.

**E. Missed Monitoring – Letter Dated November 8, 2010**

A pump was repaired and put back into HAP service. The pump had failed on a Method 21 screening; a visual pass was observed on the pump when it was put back into service, but the Method 21 re-screening was not performed until two days later at which time it passed final repair.

A drain valve and an open-ended line (OEL) were removed from a pump outlet discharge line sometime during third quarter and were not monitored. Prior to fourth quarter monitoring in the area, the valve and OEL were re-installed and were monitored.

During fourth quarter monitoring of valves, it was discovered that a valve was misclassified as Difficult-to-Monitor. As it was not classified as a Normal valve, it was not scheduled for monitoring until fourth quarter in our LDAR database.

During fourth quarter monitoring, one valve and two OELs were added into the LDAR program that are associated with our maleic anhydride storage tank and have been present on the tank all year but not in the program.

**F. End-of-Shift Calibration Drift Re-assessment not Completed – Letter Dated January 7, 2011**

On one day that Method 21 monitoring was performed at the site, the calibration drift re-assessment was not completed at the end of the monitoring shift as required in Part C, Paragraph 8 of Appendix A of the Consent Decree. The calibration drift re-assessment was performed on the monitoring equipment five days later; the equipment was not used between the end of monitoring and the calibration drift re-assessment.

## **V. CERTIFICATION**

I certify under penalty of law that I have examined and am familiar with the information in the enclosed documents, including all attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for knowingly submitting false statements and information, including the possibility of fines or imprisonment pursuant to Section 113(c)(2) of the Act, and 18 U.S.C. §§ 1001 and 1341.

Respectfully Submitted,

  
Clinton Herring  
General Manager, NAFTA  
INEOS ABS (USA) Corporation